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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,755	05/19/2005	Juergen Schroeder	DE02 0279 US	7822

65913 7590 06/23/2008

NXP, B.V.
NXP INTELLECTUAL PROPERTY DEPARTMENT
M/S41-SJ
1109 MCKAY DRIVE
SAN JOSE, CA 95131

EXAMINER	
WRIGHT, BRYAN F	

ART UNIT	PAPER NUMBER
2131	

NOTIFICATION DATE	DELIVERY MODE
06/23/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

Office Action Summary	Application No.	Applicant(s)	
	10/535,755	SCHROEDER ET AL.	
	Examiner	Art Unit	
	BRYAN WRIGHT	2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 May 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☒ Claim(s) *10* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *May 19. 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *5/19/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to application filed May 19, 2005. Claims (1-10) are pending.

Priority

2. Applicant's claim for benefit of foreign priority under 35 U.S.C. 119 (a) - (d) is acknowledged.

The application is filed on May 19, 2005 but is a 371 case of PCT/IB03/05192 application filed 11/17/2003 and has a foreign priority application filed on 11/22/2002.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the random number generator, microcontroller, and register must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claim 10 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim 10 recital of ***"least one of claims 1 to 3 and/or of a method as claimed in claim 5"***. See MPEP § 608.01(n).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Kocher et al. (US Patent No. 6,327,661 and Kocher hereinafter (cited from IDS)).

5. As to claim 1, Kocher teaches **a microcontroller the programming of which is carried out in at least one machine-dependent assembler language in which the assembler commands, with the exception of conditional program jumps or program branches, respectively, can be executed in essence independently of data, characterized by at least one random number generator assigned to the microcontroller can be executed** (i.e., Kocher teaches a random number generator [fig. 2])**, by means of which the program jumps or program branches can be executed in dependence on the state of the random number generator and/or independently of the internal state of the programming of the microcontroller** (i.e., Kocher teaches random number generator [fig. 2] used to determine clock cycles [col. 7, lines 20-25]).

6. As to claim 2, Kocher teaches a **microcontroller characterized by at least one, in particular bit-addressable, random number register assigned to the random number generator** (i.e., Kocher teaches a linear feedback shift register couple to a randomness source [fig. 1]).

7. As to claim 3, Kocher teaches a **microcontroller characterized by an embodiment as a smartcard controller** (i.e., Kocher teaches a smartcard control interface (col. 7, lines 25-35).

8. As to claim 4, Kocher teaches a **electrical or electronic device controlled by means of at least one microcontroller** (e.g., microprocessor) [225, fig. 2].

9. As to claim 5, Kocher teaches a **method for processing the programming of a microcontroller executed in at least one machine-dependent assembler language, the assembler commands, with the exception of conditional program jumps or branches, being executed essentially independently of data** (i.e., Kocher teaches a random number generator [fig. 2]), **characterized in that the program jumps or program branches are executed in dependence on the state of at least one random number generator and/or independently of the internal state of the programming of the microcontroller** (i.e., Kocher teaches random number generator [fig. 2] used to determine clock cycles [col. 7, lines 20-25]).

10. As to claim 6, Kocher teaches **a method characterized in that the random number generated by the random number generator read via software via registers** [fig. 2] **and the random number read is then evaluated with a conditional program jump or branch** (col. 11, lines 40-67).

11. As to claim 7, Kocher teaches a **method characterized in that, if at least one, in particular bit-addressable, random number register is present, testing per bit of the random number register and a conditional jump or branch is carried out** (i.e., Kocher teaches a power-on-self-test [col. 13, lines 55-60]).

12. As to claim 8, Kocher teaches a **method characterized by the implementation of at least one assembler command ("branch on random bit"), a defined bit of the random number register being supplied, in particular directly, to the condition input for the conditional jump or branch** (col. 10, lines 15-30).

13. As to claim 9, Kocher teaches a **method characterized in that at least one Arithmetic Logic Unit (ALU)** (i.e., microprocessor) **flag controlling the conditional jumps or branches is replaced, in particular via the software, by at least one bit of the random number register, so that the conditional jumps or branches corresponding to the bit of the Arithmetic Logic Unit are controlled by the bit of the Random Number Register** [fig. 2].

14. As to claim 10, Kocher teaches **use of a microcontroller** (e.g., microprocessor) **as claimed in at least one of claims 1 to 3 and/or of a method as claimed in claim 5 for completely concealing the programming running on the microcontroller** (e.g., microprocessor) [225, fig. 2], **so that at least one program running on the microcontroller** (e.g., microprocessor) **is unpredictable and non-reproducible for an external observer** (i.e., Kocher teaches random number generator [fig. 2] used to determine clock cycles [col. 7, lines 20-25]).

Prior Art Made of Record

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Blangy et al. (US Patent No. 7,251,734) Secure integrated circuit including parts having a confidential nature and method for operating the same.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRYAN WRIGHT whose telephone number is (571)270-3826. The examiner can normally be reached on 8:30 am - 5:30 pm Monday -Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, AYAZ Sheikh can be reached on (571)272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BRYAN WRIGHT/
Examiner, Art Unit 2131
/Ayaz R. Sheikh/
Supervisory Patent Examiner, Art Unit 2131